

## Experiencing electro-sensitivity - “nobody voluntarily lives this way”

On 2nd July Mirjam Schmitt reported in Taz.de on the problems Heike Keuser faces from electro-sensitivity. She now lives in Oberelz, a small village in a valley surrounded by hills and forest in the Eifel, Germany. She moved there in January because mobile phone signals are weak. Her front door is draped with a white curtain. “The neighbour has a cordless phone,” she explains, “I can feel the radiation in the house. The curtain keeps it off to some extent because it is woven with metal threads.” For 15 years the petite 44-year-old has suffered from multiple sclerosis. For eight years her body has reacted to mobile phones, masts and WiFi routers. Her electro-sensitivity started in Monreal where they used to live. When they bought a cordless phone Heike suddenly awoke for nights on end and had racing pains in her arms, legs and heart. She experienced more and more pain outside the house. “At some point I realized that it had something to do with mobile phones when I felt ill,” she recalls. She planned her days to avoid radiation, but the more mobile phones and WiFi spread, the greater her pain. “They beat like a blunt object, continuously, at very short intervals against my nerves,” says Heike. “It never stops. Everything is numb and cold. I feel like I’m tied up in my trunk, chest and limbs. It convulses my muscles and my strength declines.”

In September 2008 things suddenly became worse. With a meter they found that the mobile phone mast near the village had an additional frequency. A call to the company

confirmed that in addition to D1 there was a second mobile operator, O2. Heike began to stay with friends. Some friends doubted her sensitivity and tried to test her. “They have secretly turned on their mobile phones and waited to see if I say something,” says Keuser. She smiles bitterly. At first she tried to endure the pain and did not dare complain. “Now I immediately ask people to turn off their mobile phones, otherwise no one ever believes me.”

Dr Lebrecht von Klitzing, an environmental physicist researching EMF hyper-sensitivity, confirmed Heike’s pain. “Heike’s heart rate increased significantly during radiation,” he says. He has also recorded her spasms and cramping on the skin surface. According to Germany’s Federal Office for Radiation Protection, 6% of the population describe themselves as “electro-sensitive”. Victims complain mostly of headaches or insomnia near mobile phones and wireless networks.

Heike wants her illness, electro-sensitivity, accepted. She has found behavioural cognitive therapy unhelpful. “Nobody voluntarily lives this way,” she says in her dim room. She can no longer lead a normal life; her husband has to attend parents’ evenings and cities are taboo for her. “That hurts, especially as it affects the children,” she sighs; the move to Oberelz was not easy for their son and daughter. Rainer Keuser, an architect, plans to build a shielded house with a radiation-free room using metal plates behind the plaster, and aluminum window frames and interior ventilation to keep the windows closed if necessary. They have bought the land behind the site so no other house with a radiation source can be built there.

## California allows residents to refuse wireless smart meters

On 22nd September the president of the California Public Utilities Commission, Michael Peevey, told Chandu Vyas, who had been suffering headaches, that “he could go back to the analogue meter”. Wireless smart meters could be removed and an old analogue meter restored.

## WHO’s IARC 2B classification - “a major policy shift”

The Voice of America on 24th August called the World Health Organisation’s IARC’s classification of radio frequency as 2B carcinogenic in May “a major policy shift”.

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## Harm from compact fluorescent light bulbs – UK government still doing nothing?

ES-UK was represented by Spectrum speakers at the meeting in Westminster on 26th October of an All Party Parliamentary Group investigating the serious health problems arising from compact fluorescent and other lights. It is reported that Iain Notman from DEFRA and Pat Keen from the Department of Health admitted that they had not drawn ministers' attention to this growing health problem, despite numerous letters and several meetings. Apparently the HPA's budget has money for medical research.



## ES-UK Directory – additions

Many thanks to Ruth for the up-dated Directory. She writes: "Thank you to everyone who has sent in suggestions for useful products and services. New entries this issue include: two new suppliers of low radiation DECT; a new range of EMF-shield clothing; home-visiting phlebotomists (people who take blood for blood tests). Please keep suggestions coming. Either email [ruth@esdirectory.org.uk](mailto:ruth@esdirectory.org.uk) or send to BM Box ES-UK, London WC1N 3XX, marking the envelope "ES Directory". Please include postal addresses and telephone numbers for suppliers wherever possible. Please note: we are interested in products and services that measurably reduce the amount of EMF exposure, or enable people to avoid places which have high EMF levels; no pendants or herbs please."

## Health risks of wireless Smart Meters – ask for a wired meter instead

Thanks to Brian for circulation the information package in the last mailing, along with MCS. Have you acted yet?

## ES-UK supports sectioned EHS patients

With the generous help of some NHS doctors, the charity Electrosensitivity UK has been involved in informing relevant clinicians about the nature of electro-sensitivity and advising on the best medical treatment for sufferers, in place of sectioning and drug prescriptions. Those doctors who have sectioned EHS patients have often lacked access to appropriate medical advice. If you are aware of anyone at risk, please contact the volunteer telephone helpline.

## Good locations for ES people to stay

We are looking to establish an informal list of places with a suitable environment for people with ES to stay. The list will not be put online, emailed or published and will be held by a limited number of ES-UK volunteers. Locations in specific areas may be disclosed at their discretion to people in serious need with a proven history of engagement with the charity. If you know of any such locations and would be prepared to share them on the limited basis described above, please contact Geoff Simmonds on 01888 560047 or email [geoff\\_simmonds@btinternet.com](mailto:geoff_simmonds@btinternet.com).



## Water best with a low dry residue

Fitz reports that, for water, the lower the dry residue level or total dissolved solids the better.

The Dallas Environmental Health Centre states: "Water with a low dry residue has more minerals. Water with a high number has less. Minerals are good as many of our patients cannot take many mineral supplements." The French recommend a dry residue level under 130 mg per litre. Evian bottled water has a dry residue level of 309 mg per litre. Eden Falls water from ASDA is 80 mg. Some water in France is 20mg.

## Warning about EHS on ABC News

### – "symptoms vary"

The Philstar on 30th August had an article by Ching M Alano headed "Are you suffering from Electromagnetic Hpersensitivity Syndrome?" It stated: "People were warned about it over three years ago on the ABC News. Because its symptoms vary from person to person, experts find the condition hard to study."

## Canadian disability pension for EHS patient - wireless smart meters "breach constitutional rights"

On 30th August in "Woman claims sensitivity to radio waves" on Canada.com, Walter Cordery reported on Christel Martin, 60, of Nanaimo city. She is one of four people in Canada who receives a Canada Pension Plan disability pension for electro-hypersensitivity. Suite101 reported that on 26th October that Christel Martin fought for almost four years to be approved for a disability pension. For a few years, her condition was intensified due to mercury fillings in her teeth. As a result of wireless technology and mercury fillings, she was approved to receive a disability pension.

Martin starts feeling ill whenever she is exposed to wireless technologies like mobile phones or hand-held phones or wireless Internet radio frequencies. She said it is becoming increasingly more difficult for her to enter stores, the library, even the hospital without being bombarded with high frequency electromagnetic radiation. "I recently went into a coffee shop near the hospital and my head started itching, which is always the first symptom. Then I started to feel really sick and I asked them if they had WiFi and they told me they did." Two years ago, she discovered the reason she felt nausea, headaches, insomnia, and itchy skin was the cell tower and Wi-Fi at Vancouver Island University, and a tenant's WiFi at home. She gets swollen sinuses and intense pain.

She believes that B.C. Hydro's plan for wireless smart meters breaches her constitutional rights. Section 7 of the Canadian Charter of Rights and Freedoms states: "Everyone has the right to life, liberty and security of the person and the right not to be deprived thereof except in accordance with the principles of fundamental justice." Martin said her right to security of the person is compromised by B.C. Hydro's insistence of installing wireless smart meters in her home and neighbourhood.

EHS is a condition recognized by the CPP and several countries across the globe. Martin has made presentations to Nanaimo city council and the Regional District of Nanaimo's board of directors. Both said they will be asking the Union of British Columbia Municipalities to resolve to place a moratorium on wireless smart meters until further health studies are completed.

## First EHS person with disability allowance in Spain

The FarodeVigo on 26th October carried a long interview with Palomar Minerva, the first Spanish person with judicial recognition of permanent EHS disability. The municipality of Pontevedra has 120 mobile phone base antennas and Wi-Fi antennas and an electrical substation and power lines. This makes life very difficult for people like Minerva Palomar, despite a protective veil, jacket and trousers.



- How did you discover you were electro-sensitive?
- Sick, I felt very sick when I had the first episode. I knew nothing of what was happening. I was just really bad. They carried me to the doctor because I could not stand nor sit in a chair. The symptoms I suffer are headache, strong fatigue, mental confusion, malaise, nausea, memory loss.
- When did the symptoms start?
- In 1996, after a summer, suddenly I could not get out of bed. Even at the beginning I could not describe the symptoms, which appeared from zero to one hundred. I was just very scared and did not know what was happening.
- Had you been particularly exposed to RF?
- Eventually I discovered years later that the houses where I lived were houses near antennas.
- Are doctors familiar with these conditions?
- No, unfortunately not fully in Spain on this issue.
- You were the first person to win a disability award?
- Basically, when my health problems started, I could not adequately fulfill my job. I have been fortunate to have an award and because of that I'm not in the street under a bridge, because many people with my health problems are in crisis situations. The private sector would simply be rid of me and moreover conventional medicine does not give answers. I suffered very bad years with the mass deployment of Wi-Fi and indoor cordless phones. Even knowing the problem and trying to avoid it, I could not spend 8 hours in an irradiated site, so I started the battle for recognition of my health problem.
- What kind of fabrics do you use?
- Protective fabrics against RF were made initially for the military. As RF increases at all sites, there is no easy protection in the end.
- What preventative measures can a person take?
- I would recommend not having cordless phones, which are radiating 24 hours, but a corded telephone. Replace Wi-Fi with cable or a network over power cables. If someone lives in front of a base station and has symptoms associated with exposure they must see if they can be shielded.



## Spain raises EHS awareness

An article called "Dangerous radiation?" in *MujerHoy* on 22nd October reported that Dr Jose Francisco Tinao, vice-president of Health Living Foundation ([www.vivosano.org](http://www.vivosano.org)) is struck by the proliferation of Electro-hypersensitivity patients with symptoms including nausea, irritability, tinnitus, coughs, insomnia and even exzema and other dermatological problems. "This is a harmful environment. We are the first generation exposed to this radiation and exposures increase gradually. Children are especially vulnerable." The article also highlighted an EHS patient, Elizabeth Pena: "Areas outside the city are not free of risk. The roads and towns are littered with antennas and repeaters. If you want to spend a weekend in the countryside, you have to check the house beforehand that it does not have Wi-Fi or a wireless phone or is below a base station or a power line. Of course, urban centres are off limits. I'm all for progress, but not everything has to be wireless, because it involves a lot of radiation."

## Half population ES by 2017?

A report headed "World expert explains link between EMF and human disease, radiation in Ireland 1,000 times higher than recommendation", states that Dr Gerd Oberfeld of Salzburg, in his Eithne Naylor/Enda Dalton Memorial Lecture called "Electromagnetic Pollution and Our Environmnet" on 9th April at the Irish Doctors Environmental Association, predicted that "in a mere six years half of us will become electromagnetically sensitive". Similarly, the Royal College of Physicians in 2010 apparently predicted that half the Irish population will have "some form of cancer" by 2025. He made the prediction first in 2006 in a letter written with Orjan Hallberg published in *Electromagnetic Biology and Medicine*. He is most famous for initiating the policy which has given Salzburg the lowest ambient EM pollution in Europe.

## Insomnia and mobiles

### – "like watching a train wreck in slow motion"

The Townsend letter of May 2011 from the US included: "According to the National Sleep Foundation, the percent of people who are not satisfied with the quality of their sleep has increased from 15% of the population (43 million) in 2002 to 40% (120 million) in 2009. In addition, there has been a proportional increase in the number of people using prescription drugs for insomnia. Marching in step with both these numbers has been a steady and proportional increase in the number of cell phone towers and antennas and devices that use wireless technology based on high-frequency microwave radiation. Today we have over 100,000 cell phone relay towers in the US and 2 million antennas. The increasing level of electromagnetic pollution has caused the nation's health to spiral downward. It is like watching a train wreck in slow motion; no one seems to be able to stop it. Too many people are in denial that any problem exists at all. Most public discussion has been limited to cell phones and how long it takes for them to give you a brain tumor, but the sleeping giant of all health problems from this technology is itself sleep interruptions. The number of adults developing high blood pressure due to sleep

interruptions is increasing by about 500,000 every month. The percent of adults with hypertension is moving on a fast track from 1 in 3 to half the population. Like a volcano building up pressure leading to an eruption, tens of thousands of strokes and heart attacks will soon follow, if not already under way."

## Heart of Wales health risks under 500 metres from rail masts

The Brecon and Radnor Express on 20th October had a lengthy report headed "Residents take on rail giants" on opposition to the inappropriate siting of the 25 rail communication masts being constructed along the Heart of Wales line. Following a public meeting in Garth a resident, Jan Williams, said that they intended to ask Network Rail to resite the mast away from properties in the village.

"The potential health risks to anyone living within 500 metres of the mast are, according to the World Health Organisation, that they are at a greater risk of developing cancers." Councillor David Price added that with only eight trains a day on this line "a much better solution on seldom used lines" is needed. A letter from Jonathan Stone suggested that the presently proposed location for the Llandrindod mast would affect 70 properties within 500m, whereas moving the mast 500m north would mean that no properties would be within 500m.



## David Black, president-elect of the Bioelectromagnetics Society, and the "extinction" of "psychotic" sufferers

Microwave News on 26th May reported that David Black, the president-elect of the Bioelectromagnetics Society, was "the hand-picked candidate of the U.S. Air Force." On the 31st May it reported that "Black told a New Zealand reporter that he believed the question of radiation exposure risks from handsets had been settled: "There was never a good reason to think there was a problem in the first place." He said that he knows what's really going on: "There's a lot of people in academic careers whose futures depend on there being a continued problem."" In his 2010 BEMS Korea lecture he proposed "Electro-sensitivity or electro-phobia" and concluded his summary with the statement that "Electrophobia is a real and disabling psychiatric disorder which is readily treatable." From the website of the Rangitikei Guardians Inc.: "This is the same Dr Black who stated that people who were affected by wind turbines were 'psychotic' and that people who couldn't stand the effects would move away and be replaced by others who could. This process he termed 'extinction'."

## Fracking, ULFs, EMF sensitivity, suicide and severe weather

In an open letter of 3rd September to Colorado's leaders, headed "When Suicide is a Switch", Dr Elizabeth Maxim links the suicide rate in Larimer County, 40% higher than the national average, with fracking. Fracking is the process of extracting oil or gas from shale rocks by pressure. "This new technique creates geologic fault lines as part of the process.

Fault lines emit ultra-low EMFs; frequencies linked to increased suicide rates. Within a short time of implementing this new technique on the Niobrara Shale, the suicide rate in Larimer County began increasing. Individuals sensitive to EMFs may not realize that exposure to ultra-low frequencies can bring about feelings of deep despair and hopelessness that could lead to suicide.

The symptoms can be turned on and off like a switch. Exposure to the problematic frequencies turns them on and either removing the source

or insulating yourself from it will turn the switch off. ... People need to start seriously considering the impact of EMF Sensitivity."

Dr Maxim also suggests a possible link between EMFs and the weather. Fault lines created by fracking appear to contribute to severe weather events in the US. "On a global scale I have observed a symbiotic relationship between surface EMFs and atmospheric EMFs. When a geological event resets surface EMFs to zero, atmospheric EMFs, and accompanying severe weather, are drawn to the area, as if replenishing the EMFs."

## AF447 flight Rio to Paris: electromagnetic interference

A Next-up report on 6th October implicated electromagnetic incompatibility for the crash in the Atlantic of June 2009. A severe electrical storm, mobile phones and Wi-Fi may have been involved in upsetting the aircraft's computer controls.

## ES skin problems

A study by Christine Aschermann ("Elektrosensibilität: Ein Patient mit verbrennungsartigen Hautveränderungen" umwelamedizin-gesellschaft (: (2) 141-146) shows EMF "burns" on a sufferer's skin



## Beware American Airlines class 2B carcinogen WiFi

According to Tnooz on 3rd August the FAA has approved WiFi in aircraft for passengers to download onto laptops. More than 6,000 planes have GoGo technology for WiFi, according to Australian Business Traveller on 11th March.

## Beware John Lewis stores class 2B carcinogen WiFi

It is reported that John Lewis will install WiFi in its shops.

# READERS COMMENTS

## Safety levels for chemicals and EMFs

A reader asks why, if safety levels for chemicals are supposed to be a thousand times lower than the lowest level which harms humans, HPA and ICNIRP safety levels for EMFs are apparently about a thousand times higher than the level which harms humans.

## Copper bracelet and earthing

A reader recommends a copper bracelet to reduce static electricity.



## Digital switch and nausea

A reader notes nausea and sickness on some Wednesdays in September when digital TV signals were switched on.

## Warning needed for BT Home Hub's and iPad's group 2B carcinogen radiation

A reader thinks the BT Home Hub and iPad ought to have warning labels to state that they irradiate a Group 2B possible carcinogen under the WHO IARC classification. Other household goods and drugs have warnings about possible health effects, and even mobile phones in the small print.

## Brow of hill causes ES symptoms?

A reader wonders whether other people can feel ES symptoms when driving over the brow of a hill. He suggests that it may be that the EMFs between a mast and a mobile phone can be strongest on the shortest line between them and at the most restricted point.

## PROFESSOR BELPOMME – PRACTICAL UPDATE

A reader who has visited Prof. Belpomme's clinic in Paris has sent the following comments.

"Thanks to wearing the EM protective clothing, I was able to get through the airports and flight much more comfortably and traveling was much more bearable, as was attending the clinic in Paris. I can report a vast improvement in blood flow and oxygen to the brain; however, some biological results are still to come which are more pertinent.

A word of warning is that the levels of EMR around and in the clinic are extremely high. Outside it is 3-5 V/m and inside is up to 2 V/m. There are scores of masts around the clinic, which is located in the 15th arrondissement. It is also next to the main railway line. ES people should avoid using the metro as the average reading is above 2 V/m and almost everyone has a mobile on. The reading on the flight averaged 0.5 V/m (max. 3 V/m), with up to 5 V/m at various points in the airport.

Prof. Belpomme will almost certainly send ES patients for scans at the Centre de Radiologie located about 300 metres from the Eiffel tower, where levels have been

measured at 10 V/m. The Centre measures up to 2 V/m inside, although I could not measure the voltage at the scanner. In addition they can expect to have extensive biological tests at the Labo XV. The wait at the clinics can be 2-3 hours and that is a long time to spend in high levels of EMR. Anyone suffering badly should take someone with them if possible. EMR free accommodation is almost impossible to find within a 35 mile radius of the clinic. Ask the telephone helpline if you want safe accommodation outside Paris.

It took me approximately 6 weeks to get back to where I was before the trip but I have improved immensely in the last 12 weeks since commencing the treatment. Patients can expect to pay approximately €750 for the appointment and tests and another €150 for three months prescriptions."

Contact details: Professor Dominique Belpomme, Clinique Allera-Labrouste, 64, rue Labrouste, 75015 PARIS. Tel: +33 (0)1 45 78 53 53. [www.allera-labrouste.com](http://www.allera-labrouste.com). His clinics are on Monday and Thursday.

## DR REA ON ELECTRO-HYPERSENSITIVITY

These are some notes from a report called "Electrical hypersensitivity triggers and treatment" posted on Dr Ann Louise's Edge on Health Blog on 18th October by Melody Chan Graves, who recovered from fibromyalgia by eliminating EMFs from her home (see [ecodynamicliving.com](http://ecodynamicliving.com)).

Sweden recognizes EHS and gives EHS individuals access to low-exposure housing and the right to claim the illness as a disability.

At the Institute of Baubiologie and Ecology Conference in September 2011 in Tucson, Dr William Rea, the renowned environmental medicine pioneer with nearly 30 years of experience, said that humans are antennas with different levels of sensitivity. In his 1989 study of 25 patients who reacted to EMFs but not a placebo, 64% had changes in their autonomic nervous system. All responded with 100% accuracy to a second challenge with the same offending frequencies.

Dr Rea has observed a high correlation with sensitivity to metals like zinc, copper, stainless steel, titanium, molybdenum, manganese and magnesium. Metal implants like dental fillings and shoulder joints contribute to ES because they act as antennas. Synergistic effects from different environmental exposures are

common. 80-90% of ES is preceded by multiple chemical sensitivity and pesticide exposure is the initiator in 80% of patients seen. Food and chemical sensitivities show up on 90% of ES patient's breath, blood, hair and urine samples. Chemical exposure from fracking associated with natural gas wells affects occupants inside the fracking zone, as shown by breath analysis.

The four major triggers for ES patients in his clinic are:

1. Exposure to pesticides, moulds and mycotoxins.
2. Fracking from natural gas drilling.
3. Formaldehyde.
4. Technology such as occupational exposure to high levels of EMFs.

His treatment of ES involves four principles:

1. Live away from electrical and pesticidal areas.
2. Live in areas as free as possible from Wi-Fi, TV signals, mobile phone masts etc.
3. Live where grounding is possible. Avoid underground wires, cables, metal pipes. ES patients should be grounded.
4. Decrease your toxic load inside your home:
  - use wood, ground rods, a raised floor, low-terpene woods;
  - shield computers and TV;
  - shield wiring and try to keep some walls in each room without wiring;
  - place the bed in the middle of the room away from wiring;
  - use hardwood or ceramic flooring for

chemical reasons;

- use a wooden bed frame of hardwood, not pine or cedar which are high in natural terpenes which can cause reactions;
- use cotton or silk bedding and not commercial wool which may be treated with toxic fire-retardants;
- use a metal-free mattress, such as rawhide springs;
- eat organic foods and rotate your diet to minimize food sensitivities;
- drink spring or filtered water, or distilled water with its lack of minerals.

Dr Rea's clinic uses various treatments, including: neurotransmitter supplements; magnesium, multivitamin, multimineral and lipid/oil supplements; oxygen and hyperbaric therapy; immune modulators, gammaglobulin replacement, autogenous lymphocytic factor for improved T-cell function; traditional sauna treatment with wood and glass or ceramic sauna.

As regards the end result of ES, Dr Rea said the syndrome telescopes into a fatal disease. He stated that ES has a genetic component waiting for a trigger, and that Alzheimer's, Parkinson's, dead nerves in the brain, and heart arrhythmias are all examples of end results of ES patients left untreated. Nevertheless environmental medicine continues to grow. There are now three doctors' organizations dedicated to environmental medicine and there are about 5,000 complementary doctors worldwide.



## INDUSTRY AND GOVERNMENT

### One-sided conference

A conference on EMF and Health on 16th-17th November at the European Parliament in Brussels, organised under the auspices of the European Commission's Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR), allegedly had mainly speakers linked directly or indirectly to the telecom industry. SCENIHR, of course, tends to follow the industrial-military clique which still denies non-thermal EMF effects. ES-UK was not invited to provide a speaker.

### Motorola inquiry and alleged Austrian bribes

On 5th September the New Zealand Herald report that US regulators were investigating an Austrian lobbyist and US telecom maker Motorola over alleged bribes of up to 2.2 million euros from April 2004 onwards, which Motorola allegedly transferred to three firms controlled by lobbyist Alfons Mensdorff-Pouilly. A report in the Austrian weekly "Profil" claimed that Mensdorff-Pouilly then used this money to make "illegal payments" to key political figures in Europe and the Middle East.

## MEDIA SPIN

### BBC Radio 4 You and Yours – technical hitches and mobile risks

Suspicious minds thought it odd that the normally flawless production of BBC Radio 4 was interrupted by an unexplained technical break for the first 15 minutes of the programme on Thursday 25th August just after 12 noon. It happened to be the time when an item on the health risks to men's fertility of carrying a mobile phone in a trouser pocket was to be aired, according to announcements beforehand and on the website. When broadcast a week later, Brian Stein, a trustee of the Radiation Research Trust which sponsored powerful adverts in London and elsewhere, and a trustee of ES-UK, spoke convincingly of the 90% of scientific studies on this topic showing serious risks to male fertility.



### BBC quotes Cancer Research UK and Ahlbom on Danish "reassuring" study

The BBC News on 21st October reported on the latest Danish study, widely regarded as fatally flawed because, as it admits, it omits all business contract mobile users despite the fact that they could be the heaviest users. The BBC headings were: "Mobile phone brain cancer link rejected" and "Further research has been published suggesting there is no link between mobile phones and brain cancer" and "Reassuring".

The BBC quoted Hazel Nunn, of Cancer Research UK: "These results are the strongest evidence yet that using a mobile phone does not seem to increase the risk of cancers of the brain or central nervous system in adults." The BBC also quoted Anders Ahlbom, although he was exposed as allegedly a director of a mobile lobbying group and then removed as chair of a IARC committee, who called it "reassuring". Others quoted, as often on this issue, were David Spiegelhalter, a risk specialist, and Malcolm Sperrin, who allegedly claimed that the nuclear crisis in Japan was highly unlikely to end in a Chernobyl-style disaster.

### CEFALO study "was biased"

A paper entitled "Mobile phones and cancer risks: Scientist manipulated research – played down brain tumour risks in children", by Kerstin Stenberg and Mona Nilsson of 2nd October, questions the supposed reassuring findings from the CEFALO study into children's exposure and cancer. It refers to Professor Joel Moskowitz, Director of Center for Family and Community Health, School of Public Health, University of California, who questions the conclusions of the CEFALO scientists and the IEI, and claims that the study was biased.

In contrast, a press release from the Environmental Health Trust also on 21st October noted that the study actually showed an increase in a very rare form of glioma of the cerebral ventricle. Devra Davis, a cancer epidemiologist, apparently called the study "unsurprising, biased and misleading". Critics also found it odd that the BMJ should publish such a study and ask Ahlbom, a member of ICNIRP which tends to support the industry and not long-term biological safety limits, to add an editorial comment. Prof Henshaw, an ES-UK trustee, published an online criticism of the study, as did others.

# LEGAL



## Spain recognizes EHS for permanent disability payments

On 5th September Grupo Medico Juridico (Legal Medical Group) reported that hypersensitivity to mobile phone radiation is a new cause of permanent disability, under a ruling by the Labour Court in Madrid declaring permanent incapacitation of a college professor who suffered from chronic fatigue and environmental and electromagnetic hypersensitivity. The verdict of 23rd May sets a precedent for future EHS cases. It gave the teacher 100% of his basic salary, amounting to €1640.80. Although the Team Assessment for Disability of Social Security (EVI) recognized, as a clinical diagnosis, chronic fatigue syndrome, celiac disease, fibromyalgia syndrome and environmental electromagnetic hypersensitivity, they still dismissed the patient's disability. The Labour Court in Madrid recognized the rights of the applicant, stating that it presents enormous problems for the performance of their tasks "with the appropriate level of professionalism and performance." Legal Medical Group is a pioneer in the defence of those who apply for disability, accident or illness, advising them from a technical point of view, medical and legal since 1978.

## French city imposes moratorium on new masts

In a letter of 2nd August, Mrs Dominique Voynet, mayor of the city of Montreuil, France, informed telecom operators of the city council's decision, on the basis of precautionary principle, to "oppose systematically each new request of installation permit of telephone masts, and to suspend any new installation or modification over the existing fleet of equipment."

## French city imposes 0.6 V/m limit

On 6th September the city council of Varades, in Loire Atlantique, France, voted unanimously to reduce the maximum radiation limit to 0.6V/m on all parish territory. The mayor, Dominique Tremblay, and the municipal council, aware of the urgent necessity of protecting human health, decided to conform to the prescription released by the Council of Europe published in May 2011. This decision includes implementation of methods for independent measurements to control levels of exposure.

## Court orders destruction of phone mast from "health risks"

On 30th August Next-up news reported that, after almost 6 years and several judgments, the Belgian Council of State cancelled the license and ordered the destruction of base station antennas on a mast in Drongen because of the health risk. "This is the culmination of our struggle," says Jan Allein, who had to fight with his own money to

pay all court costs. The opponent was originally SNCB (National Society of Belgian Railways) which in 2006 received a building permit from the Flemish Region for a 28m mast near the Rue de la Gare de Drongen. Allein and his neighbour who lived nearby felt that this was a violation of the right to health and such a mast therefore had no place in a populous neighbourhood in the centre of Drongen. In 2007 work begun on the installation. "So we had to go back to the judge and then again as the other party went to appeal. This avalanche of procedures cost us a lot of stress ... and money. The judicial decision is clear: a base station site should take into account the principle of care. Whereas previously, the relay antenna towers were prohibited if they would destroy the landscape, now we must also consider the health risks."

## Mayor refuses masts on "precautionary principle"

Taken from a Permit Refusal by Jean-Pierre Schosteck, mayor of Châtillon, France, 29th June:

Network operator request : FREE MOBILE SAS.

Registered 06/06/2011

\*Projected works: installation of 3 phone masts, \*2 fake chimneys and assorted technical devices on an existing R+10 type storied public housing building.

\*GIVEN\* first and foremost, that the "precautionary principle" regarding to preservation of human health applies to this type of devices as placed on top of public apartment type housing and nearby suburban houses, \*GIVEN \*moreover that the project does not present any numerical study of irradiation measurement of antennas and other devices to be put in place,\*GIVEN \*then that it is most critical to group and share the use of such equipment from different network operators so as not to end up with a plethora of chimneys and ugly-looking technical devices on top of a R+10 type building

\*GIVEN \*consequently that the project does not fit harmoniously in to its immediate environment and that its nature can cause environmental harm in this neighbourhood (Article R-111.21 of Urban Planning Code) \*WE DECIDE\* the \*REFUSAL\* of the declaration of building permit for the described project, in its former request.





### Ban on masts until checked

The Gulf Daily News on 19th October reported that MPs have approved a nationwide ban on permits for new mobile phone masts, until a study on environmental and health risks is presented to the public. Dr Adel Al Zayani, director-general of the Public Commission for the Protection of Marine Resources, Environment and Wildlife, said that no permits were given until field visits were done: "We don't give permits without checking whether the masts are harmful or not." The Municipal and Urban Planning Affairs Ministry said emissions were within international standards.

### Paris action against illegal mast radiation above 2 V/m

Smartplanet on 19th October followed Le Monde in reporting that the Mayor of Paris has banned additional mobile phone masts on the city's roofs. In 2003 Paris allowed certain mobile phone companies to construct masts on municipal buildings within stated limits, but this contract has now ended. Paris is the only French city with an agreement with mobile phone companies to limit EMF exposure to 2 V/m over 24 hours. The mayor has accused the French Telecom Federation of allowing exposures of up to 15 V/m. Ecoforum, based in the south of France, states that levels above 1.5 V/m pose health risks. Early in October Ecoforum's president, Hugo Espinoza, measured 8 V/m in Marseille. The 186 current phone masts which spike the skyline of Paris may soon be removed.

### Mobiles restricted in Israeli schools – "specially designated areas"

On 30th August Channel 2 News reported that, following the European vote to reduce radiation exposure, the Israeli Education Ministry issued new guidelines prohibiting students from talking on mobiles in school grounds, except in specially designated areas. Instead student should text or use headphones. There is also the problem of protecting students who choose not

to use a mobile phone from "passive" radiation if other students use a mobile nearby.

### French unions vote against WiFi

On 23rd September, all the unions, CFDT, CGT and FSU, at the Bibliothèque Nationale de France voted unanimously against the deployment of WiFi in accordance with the precautionary principle and equal treatment for electrosensitive people in access to library services.

### Ban on siting power lines near buildings

In August it was reported that a new ruling by the Swedish Environmental Supreme Court (SESC) bans the Swedish utility power company "Affärsverket" from siting power lines closer than 65 meters to properties in Helsingborg, on the grounds that the electromagnetic radiation would be too high.



### Proposed bill for commission on power lines and health

Metro West Daily News on 12th October reported that state Rep. David Linsky, D-Natick, was proposing legislation to study the public health effects of electromagnetic fields, to be

heard on 18th October before the Joint Committee on Public Health. "Several West Natick residents came to me and pointed out that there have been an usually high number of residents with cancer in a neighborhood near the high tension wires. I do not know of any other neighborhood in Natick with this rate of cancer frequency. My staff and I conducted significant amounts of research on this, and it appears that there is growing scientific evidence to show a link between public health and electromagnetic fields, especially with cases of leukemia," said Linsky.

### HSE's updated advice

The HSE website on EMFs, FAQs, updated on 21st September, claims that the obsolete ICNIRP acute guidelines based on a six-minute average, as adopted by the UK government, are "precautionary" and "designed to provide protection against all known health effects of EMF's." The HSE takes the HPA's advice on WiFi risks, that there is "no consistent evidence" of adverse effects on "the general population". In contrast the HSE has set up a working group on the non-thermal adverse health effects near MRIs. The updated HSE advice makes no explicit reference to ELF and microwave radiation, as from mobiles and WiFi, as being classified as a Group 2B carcinogen.

### Mobile companies try to block San Francisco health warnings

Bloomberg news on 20th October reported that the CTIA-The Wireless Association, representing companies like Apple, Google and Nokia, are trying to block the requirement from 25th October that retailers of mobile phones display posters advising ways of taking precautions. Lawyers for the city say that the words used on the posters, such as "precautions" and "away from the body," are the same terms used by manufacturers in their user manuals. The CTIA wants that information to remain in the fine print, and not be called out in posters buyers might see, Vince Chhabria, deputy city attorney, said in a court filing.

## **EUROPEAN TRADE UNIONS' CRITICISM OF EC AND ICNIRP'S FAILURE TO ADOPT BIOLOGICAL LIMITS**

European Trades Unions reject ICNIRP 6-minute heating limits in favour long-term low-level limits. On 17th October the European Trade Union Confederation (ETUC) published a statement criticising the European Commission draft EMF worker's directive as "not up to scratch". This directive was published on 14th June 2011. It repeals the 2004 directive which should have been implemented in Member States by 2008 but was then put back to 30th April 2012, and replaces it with a more lax system and limits, particularly to allow the continued use of MRI equipment which exposes operators to very high levels of magnetic fields which can induce acute electro-sensitivity symptoms in some operators when they move through the magnetic fields, and may have long-term adverse health effects.



The ETUC believes binding legislation is needed to protect workers from EMF risks. "Because it is based only on the work of the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and of selected Member States, the proposed directive covers only the short-term effects of exposure. As a result, it disregards the

long-term impacts on workers' health, despite the International Agency for Research on Cancer's (IARC) opinion issued on 31 May this year that RF EMFs should be classified as possibly carcinogenic to humans (Group 2B)."

The ETUC highlights a series of flaws in the proposed Directive's content, including the complex method proposed for setting occupational exposure limits (using two types of values), and the higher limits for low frequencies. The ETUC also argues that MRI use should not be achieved at the cost of MRI operators' health.

Although the EMF Directive should have been implemented in all member states by 30th April 2008, and then by 30th April 2012, the Council asked the Commission to initiate a review process. "This is unprecedented in matters of workers' health and safety. Many analysts have seen it as a victory for intensive lobbying by MRI equipment manufacturers and radiologists' associations who deny that low frequency EMFs endanger patients' health." The Commission had a study done on the levels of worker exposure at four sites, which found instances of the Directive's limit values being considerably exceeded.

The detailed ETUC response is highly critical of the sloppy thinking behind the Directive. For instance (p.2, on 4.2: Precise Definitions): "Where the physiological consequences of the repetitions taken into account: e.g. if the "alarm" function of nausea regresses, will vomiting occur normally as a physiological mechanism against e.g. empoisoning? At the contrary, what would happen if this phenomenon starts to be exacerbated? What to do with a worker who would "throw up" for just nothing? These thoughts are even valid for vertigo, interferences with vagal syndromes, phosphenes and alteration of the mechanisms provoking them not only when the visual cortex (area VI) is exposed to EMF but even in all the other cases where the phosphenes' switching-on would be altered, exacerbated or inhibited."

The ETUC response points out that there is already criticism of the very high limits of ICNIRP based only on heating values. It also points out that the IEEE is a professional association dealing with the advancement of technology and not the advancement of health and safety at work. In fact the EC Directive states specifically (SS6, p.13) "it does not address the long-term effects, including possible carcinogenic effects" of EMF exposure. This is repeated in chapter 1, Article 1, SS 3. The ETUC response strongly criticises this refusal to consider long-term health effects. It points out that workers experience repeated and cumulative exposure and therefore inevitably experience long-term exposure.

The ETUC report highlights the well known problem of movement near MRI equipment inducing electro-sensitivity symptoms in the workers. It points out the problem of advice such as "walking slowly" to prevent sensitivity effects instead of real preventative approaches.

# iPad Health and Interference Problems

## iPad 2 causes ES symptoms – “feeling dizzy or nausea”

*From the iPad discussion forum on “Feeling dizzy or nausea after using an iPad”.*



- “I am using my iPad as my primary device, but I keep getting very strange bouts of dizziness and intermittent headaches. I just had a very scary moment when I could not stand up because I was so dizzy, and I thought it might have been a stroke. The dizziness keeps coming back. I just hope I am not forced to give it up over this weird dizziness effect.”

- “I’ve been using my new iPad for about a week and I blacked out driving and had to pull over after using the iPad 2 shortly before leaving the house. Scary stuff. I got weird headaches I’ve never had before and felt really ill. At first I thought it was the flu and went to the doc, who found no fever or other signs of a virus, but did some tests anyway. I got such vertigo from watching a video and doing flashcards I couldn’t believe it... and I love this magical thing. But there is no way I’m keeping it. Frightening.”

- “Just today I finished series of tests, echocardiogram, brain-scan, ultrasound on carotid artery, ... the works, to diagnose dizziness, and even one fainting episode since Christmas. Guess what I got for Christmas – an iPad!”

- “Just got iPad II last week

and I’ve felt dizzy and sick every time I’ve used it. I haven’t felt this motion sick since viewing Avatar in 3D. No problem with my iPhone. Bottom line, I guess there is a tiny portion of population that can’t handle it (I’ve always had problem with spinning rides, reading in car, playing 1st person shooter games, 3D movies, boats, etc.).”

- “I just bought an iPad from the Mac store last night. When I was watching the demonstration for using the apps on my new iPad from a great compassionate young Apple salesman, I got dizzy and fell. I normally do not faint but got all my vitals checked out anyway to make sure. I love the iPad and have been using it today but find I continue to get dizzy using it. I also get motion sickness normally.”

- “I have had my iPad about a month now and I read/ use it a lot in bed at night before I go to sleep. I have never just gotten dizzy and sick with no reason before, especially while falling asleep. One time last month after putting the iPad away I felt very nauseous and it woke me up. I was so ill, I threw up. I thought it was food or a bug. But none of that seemed to be the issue. I had no idea and just blew it off. Well last night in was reading an ebook and it was the second time I used iPad for a long time before going to sleep. I was dreaming I was nauseous and woke up sick again and threw up again. I never throw up. I knew I was using this thing both times and it was after I had put it away to sleep.”

## The iPad manual, page 3:

“Discontinue use of iPad and consult a physician if you experience headaches, blackouts, seizures, convulsion, eye or muscle twitching, loss of awareness, involuntary movement, or disorientation. To reduce risk of headaches, blackouts, seizures, and eyestrain, avoid prolonged use, hold iPad some distance from your eyes, use iPad in a well-lit room, and take frequent breaks.”

## iPad health effects

A ES reader reports sitting at a meeting diagonally behind a person who, he thought, was concentrating on some papers or a book in front of him. The object of this other person’s attention was invisible. The correspondent then started to feel the brain fog typical of ES symptoms, followed by a headache, and then pains in the foot nearest the other person, and then a sudden tiredness. At the end of the 45-minute meeting the person in front got up and for the first time his iPad became visible to our reader.

## Israel banned iPads in April 2010

On 15th April 2010 the Daily Telegraph reported that Israel banned imports of iPads, citing concerns the powerful gadget’s wireless signals could disrupt other devices. On 19th April 2010 Techradar reported that Princeton University was blocking iPads because of “malfunctions that can affect the entire school’s computer system.” George Washington University in Washington, D.C. has also experienced network problems with the iPad and users were not able to log on with the iPad or iPhone.



# School Wi-Fi Health Problems

## Teacher ill from Wi-Fi

The Toronto Sun on 6th October, in a report headed “Wi-Fi making kids, teachers sick?” stated that “a growing number of Canadian students and teachers are convinced wireless Internet at school is making them sick and they’re wondering why Health Canada has remained silent about the potential risks linked to Wi-Fi. Canada’s health agency issued new advice on mobile phones Tuesday, advising parents to encourage kids under 18 to cap their cellphone use. But Health Canada has not issued information about the possible risks associated with other wireless devices, including wireless Internet. It maintains Wi-Fi is “safe.” In May, the World Health Organization’s (WHO) cancer arm classified all radiation emitted by wireless devices as possibly carcinogenic.” Tara Strickland, a kindergarten teacher in St. Catharine’s, Ontario, has experienced leg weakness and intense headaches since Wi-Fi was installed at her school a year ago. She’s now working reduced hours and doesn’t understand why the wireless can’t just be turned off when her school is using other methods to connect to the web.

## Another group against school Wi-Fi – “heart problems” and “brain tumour”

Suite101 reported that on 25th October dozens of York Region parents met to form a coalition. Conservative M.P.P. Frank Klees attended. Lynnette Haralampopoulos, an MRI technologist, originally brought 100 parents together on 19th September. Rodney Palmer, former CTV News Foreign Correspondent and co-founder of the Safe School Committee, provided scientific evidence that wireless technology leads to many negative health effects including cardiac arrest. He said that there is an increase of children who are experiencing a cardiac arrest in classrooms that have Wi-Fi. As a result of this children are being subjected to a battery of tests that places a burden on the health care system. Palmer also stated that some children are wearing heart monitors at school. “Children should not be made to suffer when there are other options.” Another person reported that an 18 year old pupil had a brain tumor growth attributed to her being under a Wi-Fi beacon at school; the tumours were located beneath the metal hair clips she wore.

## Canadian school replaces Wi-Fi with wires

On 8th September, 1290 AM CJBK and CTV News reported that Pretty River Academy, a private school in Collingwood, Ontario, removed Wi-Fi and has replaced it with wired technology. Principal Roberta Murray-Hirst said that the new hard-wired system is actually faster than Wi-Fi and gives teachers greater control over students’ access to the internet. She said: “We like to be proactive and obviously safety is always a concern.”

## Spanish campaign against Wi-Fi health risks in schools

“Schools without Wi-Fi campaign” ([www.escuelasinwifi.com](http://www.escuelasinwifi.com)) has been set up to raise awareness of the health risks to children and teachers of Wi-Fi in Spanish schools. Irina Rodriguez de la Flor, its director, said in the article “Dangerous radiation?” in *MujerHoy* on 22nd October: “Wi-Fi systems in schools expose children to a possible carcinogen for more than 130 hours a month minimum and more than 1170 hours per year. Our campaign aims to eliminate Wi-Fi systems from the classroom and promote other internet access technologies which do not endanger health.”

## Concerns over long-term health risks from Wi-Fi in schools

Writing in the *New Zealand Herald* on 1st September Shelley Bridgeman asked “whether we actually want our children to be working in a classroom where twenty or thirty separate devices are simultaneously seeking a wireless connection. The impacts of such elevated levels of electromagnetic radiation are as yet unknown although it’s accepted it’s likely to interfere with biological processes and there are fears it can cause cancer and harm developing brains.

Such concerns led a committee set up by the influential Council of Europe to recommend that its 47 member states “ban all mobile phones ... or Wi-Fi ... from classrooms and schools” in order to protect children. Its 6th May 2011 document stated that “waiting for high levels of scientific and clinical proof can lead to very high health and economic costs, as was the case in the past with asbestos, leaded petrol and tobacco.”

# WIRELESS SMART METERS HEALTH PROBLEMS

## Neighbours' wireless water meters cause ill health – “intolerable”

Kamloops This Week on 31st August had a report by Jeremy Deutsch on Trudy Frisk, who has lived at Dallas Drive, Kamloops, 27 years. “It’s a lovely neighbourhood,” she said, but on 7th July Frisk had a water meter installed inside her home. Later that day, her ears began to ring and she felt a prickly sensation all over her body. Frisk described the feeling as like standing under a high-voltage transmission tower: “It was really weird.” Frisk hardly slept and, when she awoke the next morning, the ringing in her ears continued. However, the strange symptoms seemed to disappear when she went to work, only to return when she got home.

At first Frisk thought perhaps the meter was not grounded, so she called the city to check it out, and also had her ears checked, but her hearing was fine and the meter was grounded. Then Frisk visited her doctor, who suggested the meter could be causing her illness, since each meter has a radio-frequency transmitter.

She then called the city for options. Frisk could have Neptune Technology, the installation company, remove the transmitter and replace it with a wired dial outside the home, which would have to be physically read every three months for an extra \$25 per quarter. Or the meter could be put in a pit in her lawn for \$1,000. Frisk chose the wired route, paying extra to stop the pain. It did not work and the “intolerable” ringing did not stop. She then asked to have the meter placed in a pit, which was done on 14th August. But once again the ringing returned.

Frisk maintained the ringing is now constant, and spending time in her home is the last thing she wants to do. “It’s really difficult to live with that all the time,” she said. She’s been told by her doctor there is a small percentage of people who have recorded an intolerance to electromagnetic fields. With the frequency’s ability to travel and her surrounding neighbours all having the same water meters installed, Frisk has run out of options and is at a loss for answers. She does not blame the city or Neptune, both of which, she said, have been very co-operative and helpful. “It’s nobody’s fault, like the way some people are allergic to peanuts,” Frisk said. However, she said if she knew there was an option to have the transmitter placed on the outside of her home, it would have been her first choice. David Duckworth, director of public works and sustainability, said of health-related cases from Neptune’s water meters: “It’s very rare.” As for the choice to have a transmitter placed outside, Duckworth noted the brochure handed out to residents advises calling the city to learn about options, but only about 10 people have called so far.

## Criticism of people suffering from wireless meters – a “plot” or a “bully”?

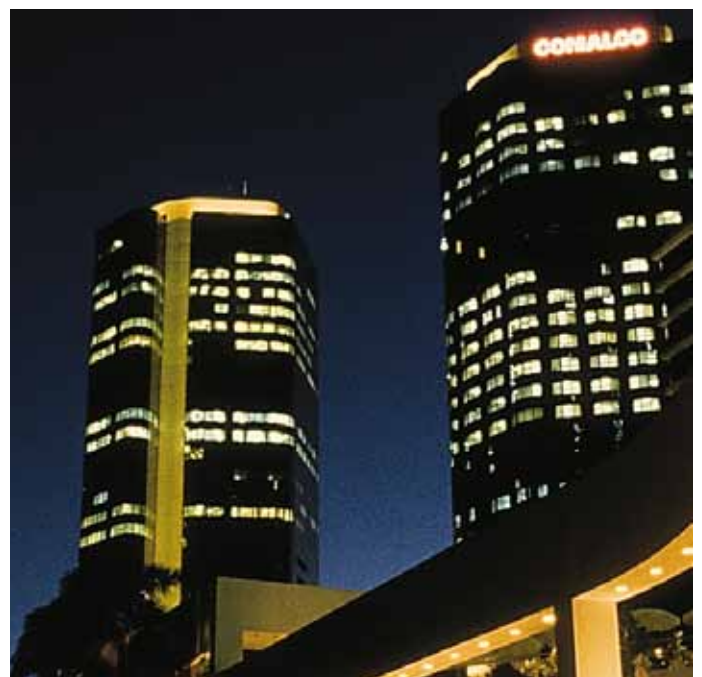
*From a letter by A. Churchill to BC Local News on 12th October:*

“What does Tom Fletcher have against people who have suffered reactions to smart meter radiation? He knows the World Health Organization has classified the radiation as a possible cancer risk, and he should know electro-hypersensitivity (EHS) is a disability recognized by the Canadian Human Rights Commission.

Thousands of people with EHS, compromised immune systems, heart problems and other health issues have become ill as a result of the mandatory installation of wireless smart meters. Mr. Fletcher seems to have convinced himself these people are united in some plot to threaten the politics and profits of the smart meter project. Perhaps he thinks the pets and plants that have shown negative effects of Smart Meter radiation are conspiring as well? Or maybe he’s just a bully who thinks people with medical conditions that make them more susceptible to radiation are an easy target?”

## NDP calls for halt to wireless smart meters

On 1st October 250 News reported that the BC New Democrats are calling on the provincial government to halt the implementation of BC Hydro’s smart meter programme until a full independent review can be completed. Local government officials attending the Union of BC Municipalities convention voted for a moratorium, due to health, privacy, and cost concerns.



## **27% of medical students ill from mobiles, more males than females**

A report of 5th October, in IBN Live from India, based on an article in the Journal of Community Medicine, Orissa, showed “worrying trends” in a hospital-based study on mobile usage of medical students aged 20-30 at the VSS Medical at Burla. Up to 27% reported persistent headaches or migraines, 20% sleep disturbance or insomnia, 15% memory loss, 15% lack of concentration, and 14% fatigue. Males were more prone to symptoms than females. Dr Purohit said: “Microwave radiation impacted by the phones affects blood-brain barrier system and dopamine opiate system to cause CNS symptoms. The problems were more prominently manifested in participants talking for more than 15 minutes.”

## **46% of women aim to cut mobile use after Group 2B carcinogenic warning**

Australia's Sunday Telegraph on 2nd October, in an article entitled “Tumour fear cuts chatter as women switch off their mobile phones”, reported that a survey, by Women's Health and Prevention with TV show Sunrise and Priceline stores, found that 25% of women were limiting their mobile use to improve health and lifestyle. The Biggest Health Check, an Australian online survey of over 30,000 women, found that another 21% wanted to reduce their mobile use in the future.

## **Children's brains absorb twice as much radiation as adults**

The Toronto Sun on 17th October reported that children's brains absorb twice as much electrical effect from mobile phone radiation than adults, and their skull bone marrow up to ten times, according to a new study (Gandhi OP et al., Electromagnetic Biology and Medicine, 2011). It stated that mobile phones carried in shirt or trouser pockets exceed guidelines set by the US Federal Communications Commission and this applies to 97% of users. The study recommends a more accurate model for children's heads to determine exposure limits.

## **Doubling of head tumours from long-term mobile phone use**

Levis AG et al (2011, Environ Health) concluded: “our analysis of the literature studies and of the results from meta-analyses of the significant data alone shows an almost doubling of the risk of head tumours induced by long-term mobile phone use or latency.”

## **San Francisco compels retailers to warn mobile customers**

From 30th September San Francisco's Department of the Environment required mobile phone retailers to provide information to customers on how to limit exposure to mobile phone radiation.

## **Gwyneth Paltrow - “mobile phone fear”**

The Daily Express on 12th August published an article headed “Gwyneth Paltrow Mobile Phone Fear”. It reported that “to avoid radiation from mobile phone usage she uses a YUBZ Retro handset”, which attaches to the phone, to avoid putting the handset directly to the ear. She said: “A handset cuts down on cell phone radiation. I use this one for my BlackBerry calls”.



## SCIENCE SNIPPETS

### MRI magnetic fields cause dizziness

The Daily Mail on 23rd September had an article "Why MRI scans CAN make you dizzy: Magnetic fields disrupt fluids in inner ear". This was based on a study with 10 healthy volunteers, who suffered dizziness when the strong magnetic fields presumably affected the electrically-charged particles of salty fluid within the labyrinth canals, and two others who lacked functioning labyrinths and who did not experience dizziness from the MRI. Tests showed that higher magnetic fields caused faster nystagmus, the involuntary eye movement reflecting the brain's detection of motion (Roberts DC et al, Current Biology, 2011).

### Humans descended from fish with electro-reception – "why some people are electrosensitive"?

A study (Modrell MS et al, Nature Communication, 2011) describes how sharks, paddlefish and some other aquatic vertebrates have a sixth sense which detects electrical fields. Most vertebrates, including humans, descend from an ancestor with an electro-receptive system. The New York Times on 18th October commented that "If we had the electrical sensitivity of that ancient aquatic ancestor or the paddlefish, we would find the world we live in now, which roars with electrical current, deeply inhospitable." Microwave News on 19th October speculated that this study may be a "breakthrough in understanding why some people are electrosensitive ... perhaps a subset has an electroreceptive system that has gone awry."

### Thyroid dangers from GSM

A study on rats (Esmekaya MA et al. 2010) showed that "whole body exposure to pulse-modulated RF radiation that is similar to that emitted by GSM mobile phones can cause pathological changes in the thyroid gland by altering the gland structure and enhancing caspase-dependent pathways of apoptosis."

### Non-thermal pulsed EMFs reduce bacteria

Bacteria in food can be reduced by using pulsed EMFs at non-thermal levels. They are even more effective combined with pulsed light. (Paglan I, et al., Int J Food Microbiol., 2011)

### Asthma linked to EMF in pregnancy

A study (Li et al., Arch.Ped.Adol. Med., 2011) of 600 women has linked exposure to magnetic fields of over 2 mG [200 nT] in pregnancy with a 350% increased risk of asthma in their children; for women exposed to 0.3-2.0 mG [30-200 nT] the risk increase was 74%. Asthma increased by 74% between 1980 and 1996 and now affects 13% of US children. For every increase of 100 nanoTesla the risk of asthma increased by 15%, from 13% average to 33% for the highest exposure group.

### Autism and high-tech industries

A study (Roelfsema RT et al., J Autism & Developmental Disorders, 2011) suggests increased incidence of autism in cities with a high prevalence of IT industry and research, such as Eindhoven, the centre of the Dutch IT industry, which has 2 to 4 times the usual rate.

### Genetic mutation, histamine and Tourette's

A study (Ercan-Sencicek AG et al., N England J Med., 2010) has linked Tourette's, with its vocal and physical tics sometimes associated with EM radiation exposure, and a genetic mutation giving rise to decreased histamine neurotransmitter in the brain, according to Scientific American (June 2011). Increased histamine apparently helps reduce ADHD, a condition often found along with Tourette's.

### Pollen germination affected by water previously exposed to a magnetic field

Betti L et al (2011) showed that a 10 microT static magnetic field combined with a 16 Hz sinusoidal MF of 10 microT, even when applied beforehand for 24 hours to the water used, can affect the in vitro pollen

germination timing of kiwi fruit, perhaps through a release of internal Ca2+ in pollen plasma membrane.

### Pulsed square-wave shape affects DNA transposition

Giorgi G et al (2011) found that ELF (20-75 Hz, 15 or 90 minutes) pulsed square-wave shape, rather than frequency or exposure time, affected DNA transposition.

### Tumour cells more reactive to pulsed electric fields

Yang W et al (2011) found that tumour skin cells react more to 30 nanosecond, 3 MegaVolt/m 50 Hz electric fields than normal cells with increased cell membrane permeability and decreased cell viability.

### ALS and sports microwave radiation

Sam Milham (Medical Hypotheses, 2010) suggests that professional athletes with Lou Gehrig's disease or amyotrophic lateral sclerosis (ALS) may be affected by microwaves used in diathermy treatment and transcutaneous neural stimulation. Of the 1964 San Francisco 49ers football team, 3 of 55 members died of ALS at a young age. The former University of Washington basketball player Melissa Jo Erickson was diagnosed with ALS aged 26; she used transcutaneous neural stimulation to manage pain during her decade-long career. Lou Gehrig of the New York Yankees' team was often treated with high levels of diathermy.

### Photons - another mechanism for EMF biological effects?

The MT Technology Review of 28th April reported on a further way in which microwaves are bio-active. Bill Bruno, of the Los Alamos National Laboratory in New Mexico, argues that when the number of photons is more than one in a space equivalent to a cubic wavelength, effects occur because photons can interfere constructively, as happens with coherent photons in optical tweezers which can damage cellular structures such as vesicles and myelin sheaths because of the change in refractive index at the edge.

## Martin Shaw – “I’m sensitive to electromagnetic interference”

On 20th August the Daily Telegraph reported that the actor Martin Shaw, who plays Inspector George Gently, has a remote crofter’s cottage in south-west Galloway. He said: “I’m sensitive to electromagnetic interference and mental noise. It’s why I can’t cope with the city. I need stillness. Not just physical quietness, but atmospheric quietness, spiritual quietness. Less mental noise. It hit me when I was still in my twenties. I noticed that every time I went into the deep countryside I would get out of the car and immediately my breathing was different, my outlook was different and I felt different. I wanted to do it more and more.”



## Ricky Gardiner

*On his website Ricky Gardiner, the guitarist of Beggars Opera and composer, says he suffers from electrosensitivity. He wrote “Lose a Life”, a Nano Opera based on a true story where a musician discovers she is electrosensitive, in 1995, about how he was sensitized that year.*

“I contracted Electro Magnetic Hypersensitivity as a result of working, for nearly 10 years, in an environment so disposed, that eventually I was surrounded by 14 computing devices within arms length. Towards the end of this period I caught a viral infection (shingles). I continued to work while infected. Perhaps this left me open to attack, since shingles is connected with the nervous system. Or it may have been connected to the anti-viral drug which was prescribed by my doctor, to help to combat the infection.

It was after this drug that the symptoms worsened. My doctor read out to me a list of about 13 known side effects of the drug. I had all of them except the last two ‘coma’ and ‘death’. I am grateful for small mercies. Whatever the exact cause, there are thousands of people like me throughout the world and over 90% of these people ‘know’ that their condition was caused by the ‘computer’.

What restrictions does my condition impose? I cannot go near television, computers of any type, CD players, FM radio, fluorescent lights, microwave ovens, mobile phones, induced magnetic fields, power supplies (switched mode) or any modern device using intelligent control ie washing machines, modern cars (petrol or diesel). I cannot go (without becoming ill) into shops, garages, doctor’s surgeries, hospitals, other peoples homes ( unless detached and all offending appliances are turned off) and commercial premises of any description, or institution. Such places are full of fluorescent lights, computers TV’s video’s etc. It also means I cannot travel by air or sea, for the same reasons. Above all I can not go into a recording studio so I have spent years endeavouring to adapt my own studio so that I can try and work to some extent. This process goes on.”

## WiFi gives me “a splitting headache followed by dizziness and slight nausea”

The Western Morning News on 26th September had an article called “Cancer risk for mobile phones”. It quoted Mr Stein, the chief group executive of Samworth Brothers, a partner company of Tamar Foods and Gingsters in Callington, South East Cornwall, who began suffering the effects of radiation six years ago when he experienced pain when using his mobile phone: “I began getting weird sensations in my ear if I went near a computer or TV, any electrical equipment with a microchip. I took the view that I was a freak and kept quiet, but it was difficult because I couldn’t drive a modern car with computers on board.” Mr Stein’s research eventually led him to the diagnosis that he is electro-sensitive, a condition he shares with several thousand people in the UK.



Fellow sufferer and top DJ Steve Miller, known to fans as Afterlife, who lives near Falmouth, says he has had to cancel lucrative gigs around the world due to the condition, including sets this year at Glastonbury and Ibiza. He gets headaches and dizziness near Wi-Fi signals and now carries a detector grading the danger levels from one to five. He said: “A Wi-Fi signal between one and two causes me to feel depressed and irritable, but between three and five gives me a splitting headache followed by dizziness and slight nausea. If I walk down the main street these days I feel light-headed and can’t stop or go into any of the shops so have decided to give that part of town a wide berth.”

## 'Wi-fi refugees' shelter in West Virginia mountains

This was the heading for a long report on the BBC website on 13th September. It included a 4-minute video showing how "dozens of Americans who claim to have been made ill by wi-fi and mobile phones have flocked to the town of Green Bank, West Virginia." Some two dozen people a year are apparently seeking to move to Green Bank to escape electrosmog. The feature was summarized in Public Radio International on 14th September, under the heading "Wi-Fi causes headaches, chronic pain for some".

One person featured was Dr Diane Schou who once lived and slept in a shielded Faraday cage to protect her from the electromagnetic radiation caused by waves from wireless communication. "It's a horrible thing to have to be a prisoner," she said. "You become a technological leper because you can't be around people. It's not that you would be contagious to them - it's what they're carrying that is harmful to you. My face turns red, I get a headache, my vision changes, and it hurts to think. Last time [I was exposed] I started getting chest pains - and to me that's becoming life-threatening."



[Photo: ABC7News]

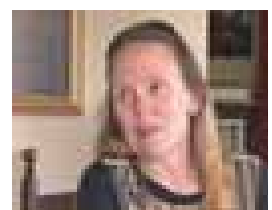
Diane believes her illness was triggered by emissions from a mobile phone mast. Her symptoms were so severe that she abandoned her family farm in the state of Iowa and moved to Green Bank, West Virginia - a tiny village of 143 residents in the heart of the Allegheny Mountains. Green Bank is part of the US Radio Quiet Zone, where wireless is banned across 13,000 sq miles (33,000 sq km) to prevent transmissions interfering with a number of radio telescopes in the area.

"Living here allows me to be more of a normal person. I can be outdoors. I don't have to stay hidden in a Faraday Cage," Diane said. "Here in Green Bank allows me to be with people. People here do not carry cell phones so I can socialise. I can go to church, I can attend some celebrations, I can be with people. I couldn't do that when I had to remain in the Faraday Cage."

The BBC report highlighted the new research [front page of the October 2011 ES-UK Newsletter] by scientists at Louisiana State University and published by the International Journal of Neuroscience, claiming to show that EHS can be caused by low frequency electromagnetic fields found in the environment. "The study provides direct evidence that link human symptoms with environmental factors, in this case EMF," says Dr Andrew Marino, a neurology professor who led the study. "It's a watershed in that regard. There have been no previous studies that scientifically assess whether electromagnetic fields in the environment could produce human symptoms. And the symptoms matter because they are the first steps that show how EMFs produce human disease." Scientists conducted a number of tests on a 35-year-old physician who had diagnosed herself with EHS. She was seated on a wooden chair while voltage was applied to metal plates for pulses of 90 seconds to create a series of magnetic fields. The woman was asked to describe her symptoms after each exposure and after random sham exposures when, unknown to her, there was no voltage. She reported headaches, pain and muscle twitching during the genuine exposures and no symptoms for the majority of the sham exposures. The scientists concluded that such consistency could not be attributed to chance.

Ironically, under the sub-heading "Technological 'ignorance'", the BBC report quoted Bob Park, a physics professor at the University of Maryland, who claimed that the radiation emitted by wi-fi is "a million times too weak" to cause the type of changes in the body's chemistry that could make people sick. According to the BBC report he said: "The bigger problem that we face is that in our society, driven by technological change, people have very little education. The thing that's going to kill them is ignorance."

Seventy-year-old Nichols Fox, a former journalist, said she understood such skepticism, since it took several years before she became convinced that her debilitating pain and fatigue were caused by electromagnetic radiation emitted by her computer. "Towards the end of my normal life when I still could watch television I could actually cut my pain off and on with the remote control device," she said. "It was such an enormously clear association there was just no denying it." Her symptoms are so severe that she has isolated herself almost entirely, living in a remote house surrounded by fields and woods just outside the Quiet Zone. She says even the low-level electromagnetic fields generated there affect her health. She uses hardly any electricity - her refrigerator operates on gas, light comes from kerosene lamps and a wood-burning stove provides most of her heat. A thermostat is set to switch on electric heaters if the temperature drops to a level where she is in danger of hypothermia.



[Photo: ABC7News]



"It's so important that people understand that this is a very serious disability, it's a life-changing disability. It leads to an earlier death - I have absolutely no doubt about that and I think it's just unfortunate that this is not recognised," she said.

Planning permission, however, has been granted for a mobile phone mast a few miles from her home, and Nichols said she'll have to move. "I'm getting older and I really don't know where I'm going to go or what I'm going to do. It's really quite frightening."

Another article in ABC7 News on 27th October headed "Allergic to radio signals: Sufferers flee to West Virginia 'quiet zone'", featured a former architect Jennifer Wood: "As soon as I heard about Green Bank, I was here in a week." It also quoted Dr Devra Davis, a toxicologist who served at the White House under President Clinton: "The difficulty is that most studies that have tried to study EHS have not been very successful. Scientifically we don't have a lot to help them with except to tell them to move away from the area."

Louise Moore Montgomery commented: "It is true what you hear about this small West Virginia town. I grew up just a few miles from Green Bank in another small town called Cass where the Cass railroad, old steam engines, is. No cell phones whatsoever and you are lucky if you can get internet service there. Some of my relatives live there and they are so healthy it is unbelievable."

## Wireless meters cause EHS

Santa Cruz News on 13th July reported that in late 2010, Winifred Thomas stopped her weekly hike around the three-mile Stanford Dish loop. Her health had been deteriorating for months until shaky limbs, physical weakness and persistent headaches made her unfit for most activity beyond household tasks.

Then in January 2011 Thomas' health crashed entirely, with insomnia, loss of leg mobility and chronic dehydration essentially crippling her. She says she began experiencing spontaneous burning and peeling of her skin and violent beating of her heart "so loud that other people could hear it. I was pretty much bedridden for all but about two hours of the day."

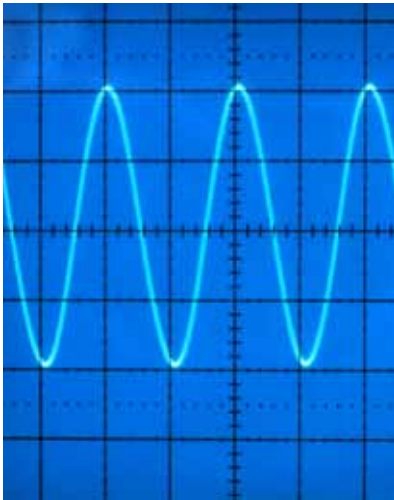
Thomas says she did not know at the time that a SmartMeter, one of PG&E's new wireless power-reading devices, had been installed on her home in early 2010. Only in February, after being struck by "an invisible force" field while walking across her front yard, did she inspect her home and take full notice of the device, as well as the SmartMeter on her neighbour's home. "I started doing some research and I found that other people were having similar problems," says Thomas, who quickly packed a few of her belongings, including her cat, Toby, who was also experiencing similar symptoms, into a van. Thomas began living out of her vehicle, sleeping every night in neighbourhoods free of wireless SmartMeters. Her symptoms cleared up.

For Karl Maret, a Santa Cruz doctor who specializes in "energy medicine," the correlation between EHS symptoms and the radiation emitted by increasingly ubiquitous wireless communication devices is clear enough to take seriously. "I know some of these people who report these symptoms, and they aren't necessarily crazy people," he says. "They have these symptoms, and they often coincide with the installation of their SmartMeters." Maret lists the symptoms frequently described by EHS sufferers: ringing in the ears, headaches, anxiety and difficulty using one's limbs. Lloyd Morgan, a researcher with the Berkeley-based Environmental Health Trust, says EHS is a serious health issue for people who suffer from it. "It's like an allergy. Most people don't have it, but those that do can have really dire problems. The tragedy is that no officials are taking this seriously."

From a comment by Susan on 13th July: "I am an individual who has developed RF/EMF/EHS sensitivity after my smart meter was installed ... The wireless smart meter was placed on my bedroom wall near the head of the bed, by my pillow, on the outside of the building. For six months I tried to sleep in my usual spot, unaware of the danger. By the time I was very ill, I found out it was the meter, from my doctor. And indeed, it is, very obviously. Now, I can't go near it, have become extremely sensitive, have endured painful loud clicking and ringing in the ears, ice pick pain in the ears, severe headaches and more."

From a comment by Daryl Vernon on 13th July: "At our Toronto residence, after activation of our wireless electricity meter, tinnitus was activated in me for the first time. I "heard" one meter transmit at 9, 24, 39 and 54 minutes after every hour, with this microwave auditory (Frey) effect hearing rising and falling many times per hour."

# EHS STORIES



The power output was a mere 200 microW. We know many like this. There is no pain in the brain: a sonic warning instead. This is not a mere non-adverse bioeffect, as industry apologists would have it. Whereas a generation ago Frey effect was experimentally provoked at much higher power, it is reasonable to figure that a generation of xenobiotic electromagnetic onslaught has weakened everything with cells in its body, such that bio-effects thresholds keep decreasing.

There is thus no refuge within our own homes for those of us who always suspiciously shunned latter-day wireless mania. If the cell towers don't get you, the smart meters will. It can seem like that is the plan, so ridiculous is the deafness of most authorities to the outcry. We had the meter replaced, and at another location, albeit with a wireless one at higher power, but that transmits but for one very short period a day, judged far less deleterious than constant "meshed" transmission & retransmission. Perpetrators have learnt from a century of practice at getting away with things, such as asbestos, DDT, lead and so on. Wired options exist."

## Fleeing radiation – “we are the proof”

Macleans.ca on 13th October featured an article on various EHS people by Alex Ballingall, called “On the run from radio frequencies”.

Samantha Boutet, a naturopathic doctor, and her two daughters are relocating more than 600 km east of their home in Maple Ridge, B.C., to a small cabin in a remote valley in B.C.'s Kootenay mountains. The decision was spurred by a series of health problems affecting her older daughter, Amelia, now 11, which started in grade 4. For more than a year, Amelia suffered from deep headaches, nagging nausea, inexplicable muscle soreness, tingling extremities, and insomnia.

Eventually, after visiting a number of specialists, the family doctor diagnosed Amelia with electromagnetic hypersensitivity (EHS). Boutet admits: “I felt really bad because her body was telling her there was something wrong, and I was telling her there couldn't be, and I couldn't understand why she was behaving the way she was.”

EHS sufferers can either live with their pain, or flee to backcountry refuges. “It's not that I'm just worried,” Boutet says. “My older daughter will be deathly sick, so we have to leave.” In the U.S., people are flocking to the tiny town of Green Bank, W.Va., part of the country's Radio Quiet Zone. No wireless is allowed within 33,000 square kilometres so the waves don't interfere with telescopes operated by an astronomy observatory and the U.S. military.

Una St. Clair, director of Citizens for Safe Technology, has also been diagnosed with EHS by a doctor. She does not leave her house without a special hat and an undershirt woven with silver to ward off electromagnetic waves. She has been scouring the B.C. interior for areas “free from all this poison in the air.” For her, the fact that people are willing to drop everything and move is evidence enough that electromagnetic frequencies cause harm. “Apprehension doesn't make people leave their lives behind or quit their jobs,” she says.

Lucy Sanford, a former Toronto real estate agent, had been in a decade-long battle with anxiety, insomnia, periodic body numbness, breathing trouble and other ailments when she became depressed, even suicidal. After moving out of the city to the small Lake Erie community of Crystal Beach, Ont., Sanford feels better, and blames her past troubles on electromagnetic waves. For her, there's no doubt technology is taking a toll. “We know it's there. We don't need the proof,” she says. “We are the proof.”



## ES-UK Leaflet

It's an excellent introduction to what ES is, with notes on its symptoms and causes. Give it to your relatives and friends, or anyone interested.

Copies are available on the ES-UK website and from the ES-UK BM Box address on this page.

### ElectroSensitivity UK

www.es-uk.info

#### What does ES-UK do?

ElectroSensitivity UK runs a helpline to support people with ES, their friends and family, to ensure there is a sympathetic ear to hear individual's experiences and to offer information and practical help, where possible.

- We have information on ES, what it is, and what you can do about it, to enable you to improve your health and persuade others, including your medical contacts, of the reality of your condition.
- We maintain an up to date library of scientific research into ES.
- We have an interactive forum on the website for those people who can use computers, to share experiences and what has helped.
- We send out a bi-monthly newsletter keeping people informed about people's experiences, tips from sufferers about what helps them, information about ES in the workplace and at home, national and international news including new research.
- We do our best to encourage changes in medical opinion about ES, and to lobby for political change re: exposures, appropriate housing, work adaptations and benefits.

#### Electrosensitivity? What's that?

Electrosensitivity (ES) is a condition which can develop when people are exposed to things like mobile phones, mobile phone masts, powerlines, substations, computers, WiFi wireless networks, domestic wiring, DECT cordless phones and other household appliances.

#### Contact

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**Please send contributions for the ES-UK Newsletter to:  
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### Aims of ES-UK

1. To help people suffering from electro-sensitivity
2. To educate the public about electro-sensitivity and related areas

### Support ES-UK

A donation of £15 per year, or whatever you can afford, helps with the running costs of ES-UK. Cheques, payable to ES-UK, should be sent to the BM Box shown, with a Gift Aid declaration if you wish and are eligible.

### Newsletter

Thanks to Gordon Flavell for typesetting and use of photographs © and to Brian Stein for printing and distribution.

### Donations

Donations should be sent to the BM Box, London.



for all people sensitised by electro-magnetic fields and radiation

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WC1N 3XX**

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**[www.es-uk.info](http://www.es-uk.info)**